AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method of optical authentication and identification of objects, ~~characterized in that it consists in~~ <u>comprising:</u>

illuminating with coherent light a volume-wise at least partially scattering surface of reference objects under specified illumination conditions, [[in]]

recording the speckle patterns thus obtained for various nominal values of illumination parameters and also in a range of values around these nominal values, then,

upon the verification of other objects or of the same objects, in illuminating these objects under the same nominal conditions and [[in]]

comparing each time the speckle pattern thus obtained with those which were recorded and

[[in]] retaining the objects if their speckle pattern corresponds to one of those that was recorded.

2. (currently amended): The method as claimed in claim 1, ~~characterized in that~~ <u>wherein</u> the parameters are one at least of the following parameters: wavelength of illumination of the objects, distance of focusing on the reference object, position of the illumination source, orientation of the objects.

3. (currently amended): The method as claimed in claim 1 ~~or 2~~, ~~characterized in that~~ <u>wherein</u> the speckle patterns are preprocessed before recording.

4. (currently amended): The method as claimed in claim 3, ~~characterized in that~~ <u>wherein</u> the preprocessing consists in compressing the images.

5. (currently amended): The method as claimed in claim 4, ~~characterized in that~~ <u>wherein</u> the compression consists in performing ~~one~~ at least <u>one</u> of the following operations: Fourier transform, fast Fourier transform, wavelet transform, cosine transform.

6. (currently amended): The method as claimed in claim 5, ~~characterized in that~~ <u>wherein</u> the image is normalized, preserving only its phase information.

7. (currently amended): The method as claimed in claim 5 ~~or 6~~, ~~characterized in that~~ <u>wherein</u> the preprocessing also consists in removing from the images the values corresponding to the low spatial frequencies and to the high spatial frequencies.

8. (currently amended): The method as claimed in ~~one of the preceding~~ claim[[s]] <u>1</u>, ~~characterized in that~~ <u>wherein</u> the comparison of the speckle patterns is done by correlation.

9. (currently amended): The method as claimed in claim 8, ~~characterized in that~~ <u>wherein</u> the decision of a comparison is taken on the basis of criteria weighting at least one of the following results:

[[-]] the logarithm of the deviation between the amplitude of the correlation peak and a predefined threshold,

[[-]] the distance between the current position of the correlation peak and the nominal position, <u>and</u>

[[-]] the variance of these data over several successive measurements.

10. (currently amended): The method as claimed in ~~one of the preceding~~ claim[[s]] <u>1</u>, ~~characterized in that~~ <u>wherein</u> a database of reference patterns is constructed and ~~that~~ the authentication or identification is performed using this database.

11. (currently amended): The method as claimed in ~~one of the preceding~~ claim[[s]] <u>1</u>, ~~characterized in that~~ <u>wherein</u> a calibration of the readers is performed with the aid of a calibration image so as to determine the critical parameters.

12. (currently amended): The method as claimed in ~~one of the preceding~~ claim[[s]] 1, ~~characterized in that~~ wherein the authentication or identification is borne out by interrogating a reader.

13. (currently amended): The method as claimed in ~~one of the preceding~~ claim[[s]] 1, ~~characterized in that~~ wherein the recording of the speckle patterns is done by holography.

14. (currently amended): The method as claimed in claim 1, wherein the characteristics of the optical part of the reader are adjustable and [[that]] the positioning error, if any, of the object is corrected while tending to reduce [[its]] measurement error.

15. (original): The method as claimed in claim 14, wherein the "zero" position of the reader having been determined, the reader is positioned according to coordinates drawn at random and the speckle image obtained is compared with the image which ought theoretically to be obtained.

16. (original): The method as claimed in claim 1, wherein information identifying the object of another nature is recorded in addition to the speckle images.

17. (original): The method as claimed in claim 16, wherein the identification information is contained on the surface or in the interior of the object.

18. (original): The method as claimed in claim 17, wherein the identification information is borne by ~~one~~ at least one of the following supports: magnetic track, electronic chip, optical storage area, and bar code.

19. (original): A device for the optical authentication and identification of objects, comprising:

an optical recording device with laser source,

a storage device and an optical reading device with laser source, whose illumination beam illuminates the objects and whose optical device forms on the detector of the reading device

an image of the illuminated area of these objects, parameters of these optical devices being modifiable.

20. (original): The device as claimed in claim 19, wherein the modifiable parameters are ~~one~~ at least <u>one</u> of the following parameters: wavelength of the laser source, direction of emission of the laser beam, focusing of the laser beam, position of the laser source, inclination and position of the object with respect to the laser beam.